



## **NIRB Application for Screening #125498 OP NANOOK-NUNALIVUT 2020**

**Application Type:** New

**Project Type:** Defence

**Application Date:** 12/23/2019 2:58:05 PM

**Period of operation:** from 0001-01-01 to 0001-01-01

**Proposed Authorization:** from 0001-01-01 to 0001-01-01

**Project Proponent:** Sarah Rahmer  
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Canada  
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## DETAILS

### Non-technical project proposal description

English: Joint Task Force North (JTFN) will conduct Operation NANOOK-NUNALIVUT 2020 (Op NA-NU 20) from 21 February to 31 March, 2020, based out of Resolute Bay and Rankin Inlet, Nunavut. The overall aim is to further enhance the Canadian Armed Forces' (CAF) knowledge and capacity to operate in austere locations and challenging environments, while allowing the CAF to demonstrate their ability to effectively respond to safety and security issues in the Arctic. Op NA-NU 20 will conduct patrols on the land, on the sea ice, and in the air. It will consist of approximately 300 CAF personnel and will include collaboration with international partners. To facilitate the conduct of Op NA-NU 20, JTFN will establish a Task Force Headquarters in Resolute Bay consisting of approximately 10 members with an additional 40 support personnel. In Resolute Bay, the Canadian Army will be supported by members of 1 Canadian Ranger Patrol Group (CRPG) for a total of approximately 200 personnel. Patrols will be performed on the sea ice in the vicinity of Resolute Bay, conducting training in arctic survival skills. Two live fire ranges will be conducted in the vicinity of Resolute. In Rankin Inlet a dive team consisting of approximately 60 personnel will conduct under-ice diving operations with international partners. Diving operation will also focus on ice breaching capabilities and will involve the use of explosives to understand the options for breaking through ice for diver access to the sea. CC-177 (Globemaster), CC-138 (Twin Otter), and CC-130 (Hercules) aircraft, based in Resolute will provide transportation, resupply and casualty evacuation services if required. In addition to the above project description submitted for review, CAF is looking to add below specifics: 1. Defence Research group (DRDC) wants to be allowed to use pyro technique in Resolute bay. The pyro they want to use are simple distress flares and they mentioned that they already have an agreement with RCMP to dispose of any misfire flare; 2. The reserve in Resolute Bay would like to have permission to burn their ration wrapping (cardboard box) to reduce the amount of garbage they'll have to bring back - so a permit for open sky fires is required and needs to be added to the application; 3. Both the reserve and 12 RBC would like to establish a fuel cache of up to 12,000L for their long range patrols. They can't provide the exact location at this moment but 12 RBC would need it for their patrol from Resolute Bay to Polaris and 35 RBC (reserve) would need to cache fuel for their patrol from Rankin Inlet to Chesterfield 4. The divers have provided the specs of explosives they were hoping to use: They are looking at using only C4 and no shape charges, including: 1. C4 Blocks X 10 (0.53 Kg of explosive/blocks) 2. Detonation cord X 60m; 3. Electric detonator X 5; 4. Time fuze M700 X 25m; 5. Igniter M-60 X 5; 6. Non-electric detonator X 5. By not including the linear shape charges it significantly reduces the amount of explosive being used and reduces the danger area to 300m radius.

French: Not applicable

[illegible]

Inuinnaqtun: Not applicable

## Personnel

Personnel on site: 200

Days on site: 30

Total Person days: 6000

Operations Phase: from 2020-02-20 to 2020-03-31

## Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
OP NUNALIVUT 2020	Other	Crown	N/A	N/A	N/A

## Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Information is not available			

## Authorizations

Indicate the areas in which the project is located:

Kivalliq  
North Baffin

### Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Information is not available				

### Project transportation types

Transportation Type	Proposed Use	Length of Use
Air	CC-177 (Globemaster), CC-138 (Twin Otter), and CC-130 (Hercules)	
Land	by foot	

### Project accomodation types

Other,

## Material Use

Equipment to be used (including drills, pumps, aircraft, vehicles, etc)

Equipment Type	Quantity	Size - Dimensions	Proposed Use
BV206	2	L5.72m/W2.01m/H2.72m/Wt:8,500kg	transportation of troops and equipment
Light Over Snow vehicles with Qamutiik	200	L3.00m/W1.30m/H1.20m/Wt140kg	Transportation of troops and equipment
Heaters	10	L1.24m/W2.55m/H1.20m	Heating tents
5kw Generator	2	L2.0m/W1.1m/H0.2m	Temporary power
Tent group including Colman stove and lantern	15	L3m/W3m/H2.5m	shelter
CC-138 Twin Otter Aircraft	2	L15.1m/W9.81m/H5.66m/Wt5,600kg	Transportation of troops and equipment
CC-130 Hercules	1	L30m/W40m/H11m/Wt34,400kg	Transportation of troops and equipment
CC-177 Globemaster	1	L53m/W52m/H17m/Wt128,100kg	Transportation of troops and equipment
CH-146 Griffon	1	L17.1m/W14m/H4.6m/Wt5355kg	Transportation of troops and equipment
Snowmobile	20	3X1.3	transportation

### Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Information is not available						

### Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
0		

# Waste

## Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Information is not available				

### Environmental Impacts:

Two personnel visited Rankin Inlet to discuss the potential of conducting an explosives range during OP NANU with an official from the local Municipal Office. Our intent is to gain local knowledge on preferred location, impact to the environment and local species, impact to food sources, and to ascertain the general thoughts from the community on the prospect of an explosives range. Detailed EOD/UXO plan: No actual military ordnance, only bulk explosives and explosive accessories, will be used during the explosives range. As such, the possibility of a resulting UXO and a subsequent EOD plan does not exist. However, the possibility of a misfire does exist. In the event of a misfire, we will follow appropriate CAF procedures. Standard misfire wait times will apply (30mins for non-electric misfires, 10mins for electric misfires). On completion of misfire wait times, the RSO only will investigate the misfire and determine the most suitable course of action. The misfired initiation set will be replaced with a new initiation set. Detonation will be attempted with the new initiation set. The intent is to trial two separate techniques to explosively open a hole. The first employs a directional shape charge while the second employs a bore hole in the ice and the explosives are placed under water. The storage of the explosives will be in a sea container located at the FOL. Standard mitigation measures (bubble curtain) will not be employed to reduce the effect on the marine environment. However, there are natural environmental mitigation measures based on the chosen location. Due to the increased depth (~33m) of the chosen site, disturbance to the seabed will be less than in shallower depths. The chosen location is surrounded by islands with steep terrain. The location of the islands in relation to the detonation site will help to both provide frontal protection to personnel and to minimize propagation of the blast-wave toward the community.

# **Additional Information**

**SECTION A1: Project Info**

**SECTION A2: Allweather Road**

**SECTION A3: Winter Road**

**SECTION B1: Project Info**

**SECTION B2: Exploration Activity**

**SECTION B3: Geosciences**

**SECTION B4: Drilling**

**SECTION B5: Stripping**

**SECTION B6: Underground Activity**

**SECTION B7: Waste Rock**

**SECTION B8: Stockpiles**

**SECTION B9: Mine Development**

**SECTION B10: Geology**

**SECTION B11: Mine**

**SECTION B12: Mill**

**SECTION C1: Pits**

**SECTION D1: Facility**

**SECTION D2: Facility Construction**

**SECTION D3: Facility Operation**

**SECTION D4: Vessel Use**

**SECTION E1: Offshore Survey**

**SECTION E2: Nearshore Survey**

**SECTION E3: Vessel Use**



**SECTION F1: Site Cleanup**

**SECTION G1: Well Authorization**

**SECTION G2: Onland Exploration**

**SECTION G3: Offshore Exploration**

**SECTION G4: Rig**

**SECTION H1: Vessel Use**

**SECTION H2: Disposal At Sea**

**SECTION I1: Municipal Development**

**Description of Existing Environment: Physical Environment**

sea ice, frozen/ice covered shoreline

**Description of Existing Environment: Biological Environment**

unknown

**Description of Existing Environment: Socio-economic Environment**

N/A

**Miscellaneous Project Information**

**Identification of Impacts and Proposed Mitigation Measures**

Impacts are intended to be minimal - small holes in ice. Mitigation is to make blasting of ice minimal to disturb only small portion of ice and nothing else around it.

**Cumulative Effects**

unkown

# Impacts

## Identification of Environmental Impacts

		PHYSICAL	Designated environmental areas	Ground stability	Permafrost	Hydrology / Limnology	Water quality	Climate conditions	Eskers and other unique or fragile landscapes	Surface and bedrock geology	Sediment and soil quality	Tidal processes and bathymetry	Air quality	Noise levels	BIOLOGICAL	Vegetation	Wildlife, including habitat and migration patterns	Birds, including habitat and migration patterns	Aquatic species, incl. habitat and migration/spawning	Wildlife protected areas	SOCIO-ECONOMIC	Archaeological and cultural historic sites	Employment	Community wellness	Community infrastructure	Human health
<b>Construction</b>																										
-		-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
<b>Operation</b>																										
Other		-	-	-	-	U	-	-	-	U	U	-	U		-	U	U	U	-		-	-	-	-	-	-
<b>Decommissioning</b>																										
-		-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

(P = Positive, N = Negative and non-mitigatable, M = Negative and mitigatable, U = Unknown)

Project Location



List of Project Geometries

1	point	OP NUNALIVUT 2020
2	point	OP NUNALIVUT 2020
3	point	OP NUNALIVUT 2020
4	point	OP NUNALIVUT 2020
5	point	OP NUNALIVUT 2020
6	point	OP NUNALIVUT 2020
7	point	OP NUNALIVUT 2020
8	point	OP NUNALIVUT 2020
9	point	OP NUNALIVUT 2020
10	point	OP NUNALIVUT 2020
11	point	OP NUNALIVUT 2020
12	point	OP NUNALIVUT 2020

13	point	OP NUNALIVUT 2020
14	point	OP NUNALIVUT 2020
15	point	OP NUNALIVUT 2020
16	point	OP NUNALIVUT 2020
17	point	OP NUNALIVUT 2020
18	point	OP NUNALIVUT 2020
19	point	OP NUNALIVUT 2020